

### Amendments to the SPECIFICATION

Please replace paragraph [0053] with the following amended paragraph:

#### Clean Version:

**[0053]** With reference now to FIG. 5, because each of the next term in the infinite series in equation 320 depends upon the square root of the previous term, the order of magnitude decreases drastically from one term to the next. According to one embodiment of the present invention, the process 500 of evaluation of function  $f(\lambda)$  is summarized in FIG. 5. At 510,  $f(\lambda)$  is assigned a value equals to  $\lambda$  multiplied by  $\sigma_0(\lambda - 1)$  for a given  $\lambda$ . The stress  $\sigma_0$  value at strain  $\varepsilon_0$  or  $\lambda - 1$  is from engineering test data (e.g., the curve defined in the user input phase of FEA software). At 520,  $\lambda$  is stored into a variable  $\lambda_{old}$ . A new variable  $\lambda_{new}$  is stored as one over square root of  $\lambda_{old}$  at 530. At 540, a comparing test is performed for the absolute value of  $\lambda_{new} - 1$  being less than or equal to 0.01. If the test 540 is true, the process 500 follows the "Yes" branch to "END", in which the computation of  $f(\lambda)$  has finished, the rest of the terms in the infinite series is too small to affect the final result of the computation. If the test 540 is false, the process 500 follows the "No" branch to 550, in which another stress value at strain  $\lambda_{new} - 1$  is multiplied by  $\lambda_{new}$  and accumulated into function  $f(\lambda)$ . At 560, the value of  $\lambda_{new}$  is stored into  $\lambda_{old}$ . The process goes back to 530 until the computation finishes or the test 540 is true.

Marked-up version:

**[0053]** With reference now to FIG. 5, because each of the next term in the infinite series in equation 320 depends upon the square root of the previous term, the order of magnitude decreases drastically from one term to the next. According to one embodiment of the present invention, the process 500 of evaluation of function  $f(\lambda)$  is summarized in FIG. 5. At 510,  $f(\lambda)$  is assigned a value equals to  $\lambda$  multiplied by  $\sigma_0(\lambda-1)$  for a given  $\lambda$ . The stress  $\sigma_0$  value at strain  $\varepsilon_0$  or  $\lambda-1$  is from engineering test data (e.g., the curve defined in the user input phase of FEA software). At 520,  $\lambda$  is stored into a variable  $\lambda_{old}$ . A new variable  $\lambda_{new}$  is stored as one over square root of  $\lambda_{old}$  at 530. At 540, a comparing test is performed for the absolute value of  $\lambda_{new}-1$  being less than or equal to 0.01. If the test-fails 540 is true, the process 500 follows the "Yes" branch to "END", in which the computation of  $f(\lambda)$  has finished, the rest of the terms in the infinite series is too small to affect the final result of the computation. If the test-succeeds 540 is false, the process 500 follows the "No" branch to 550, in which another stress value at strain  $\lambda_{new}-1$  is multiplied by  $\lambda_{new}$  and accumulated into function  $f(\lambda)$  ~~at 550~~. At 560, the value of  $\lambda_{new}$  is stored into  $\lambda_{old}$ . The process goes back to 530 until the computation finishes or the test 540 is true.

**Amendments to the DRAWINGS**

Please replace the original FIG. 5 with the replacement FIG. 5 attached at the end of this amendment (after page 11). The replacement FIG. 5 changes the "Yes" and "No" branches of the test **540**. No new matters are introduced.